

Fig. 1

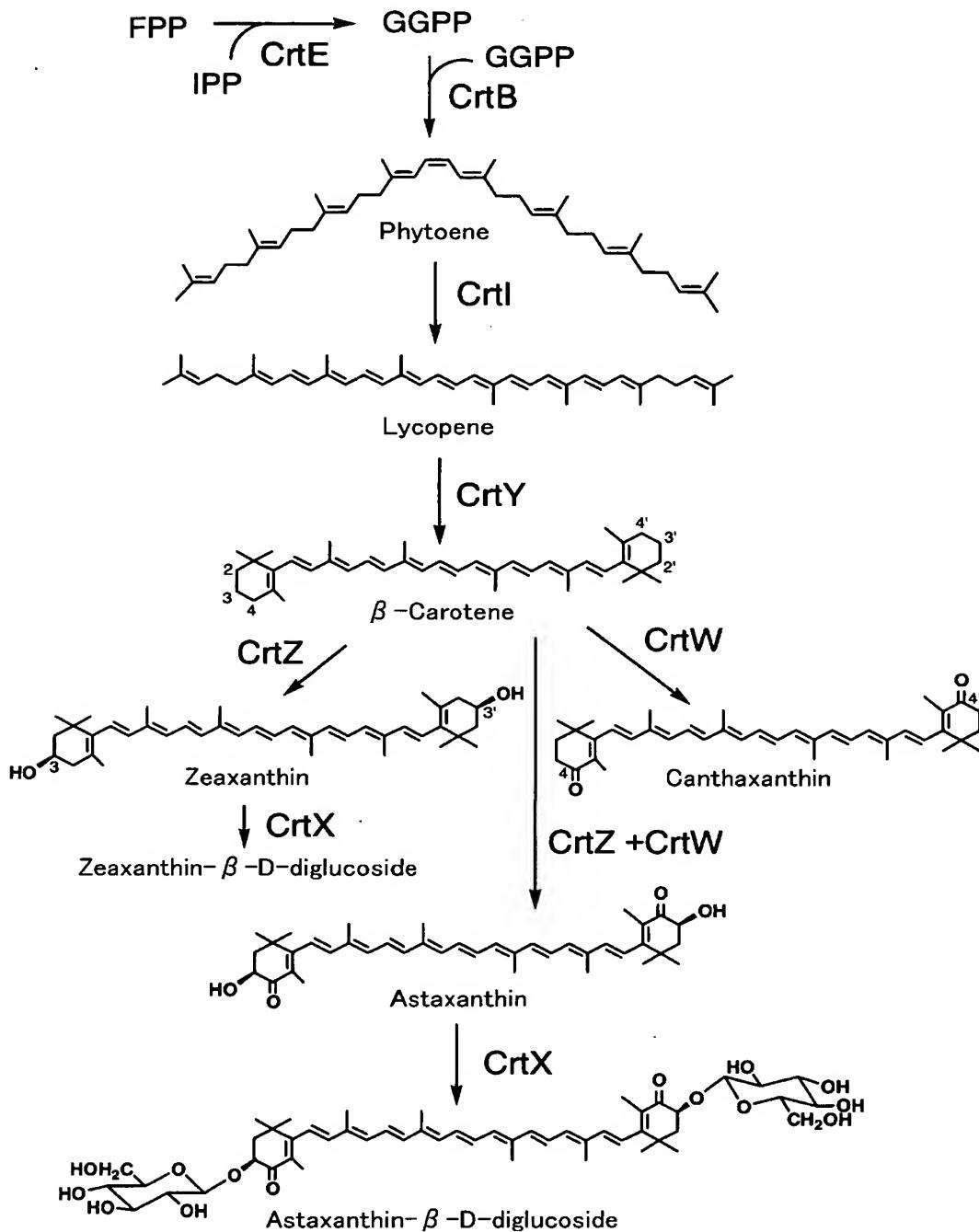


Fig. 2

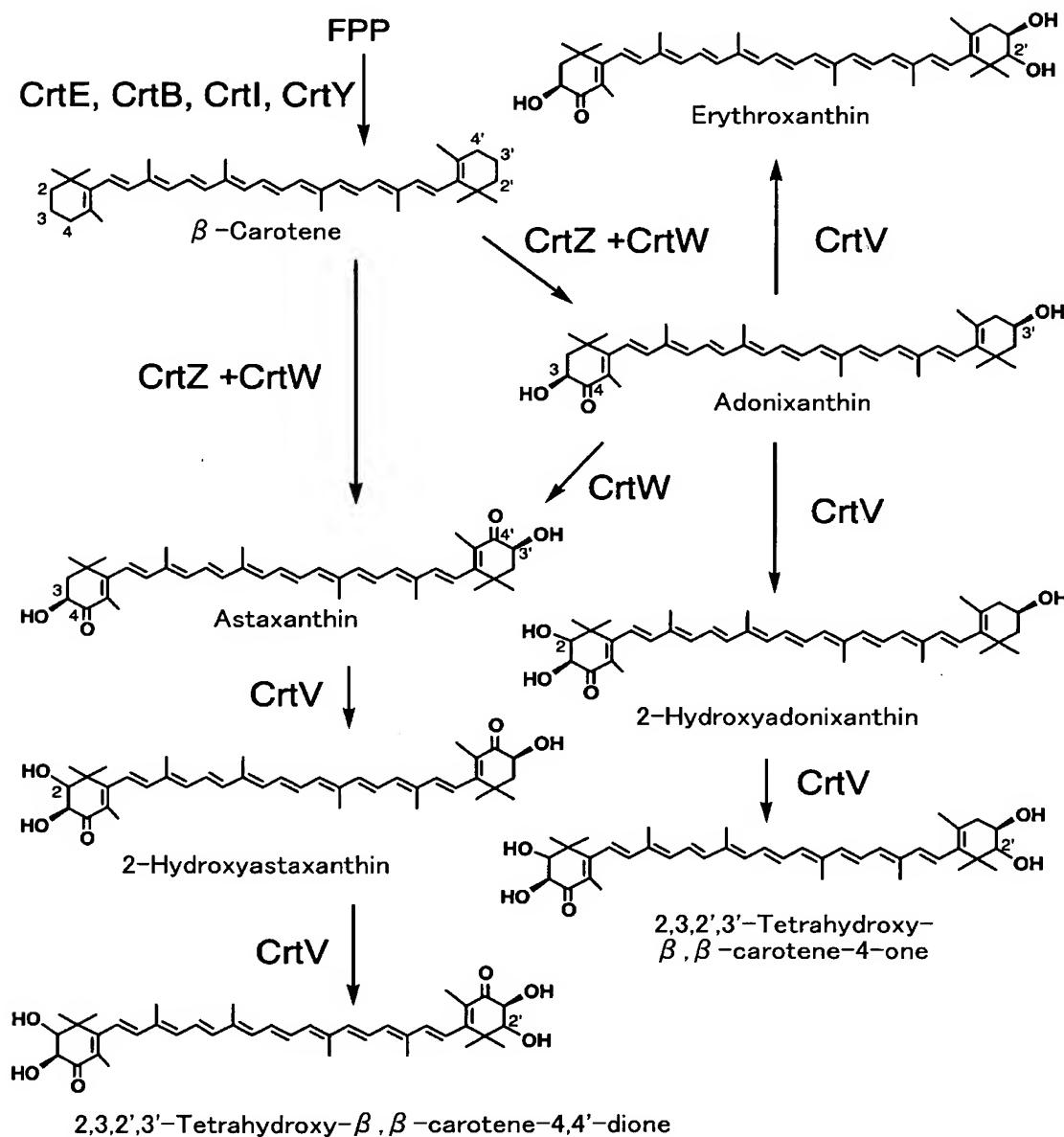


Fig.3

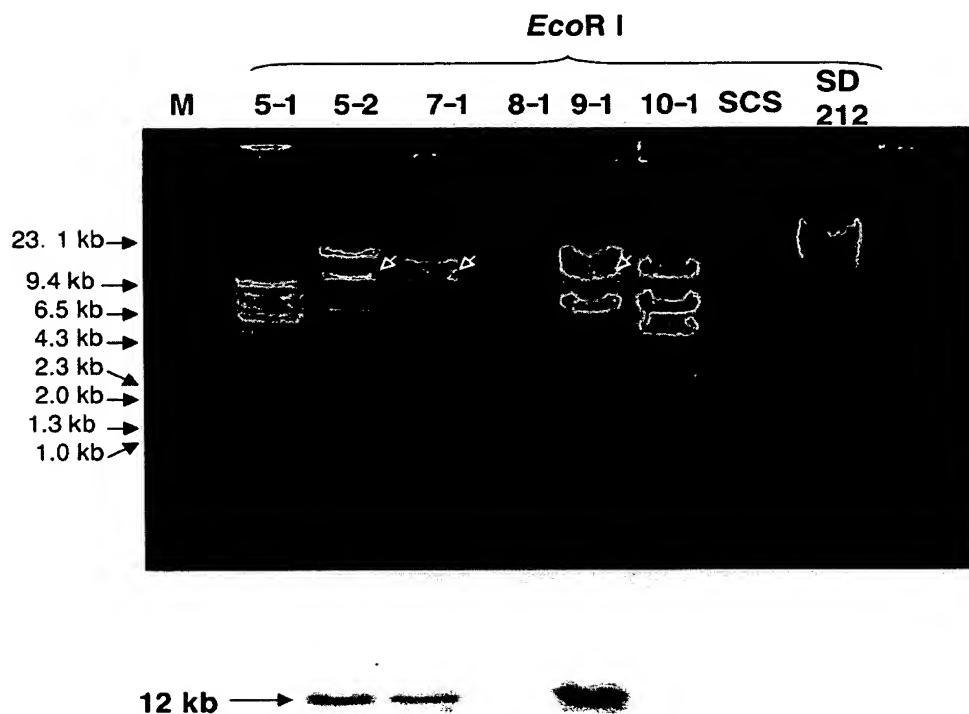


Fig. 4

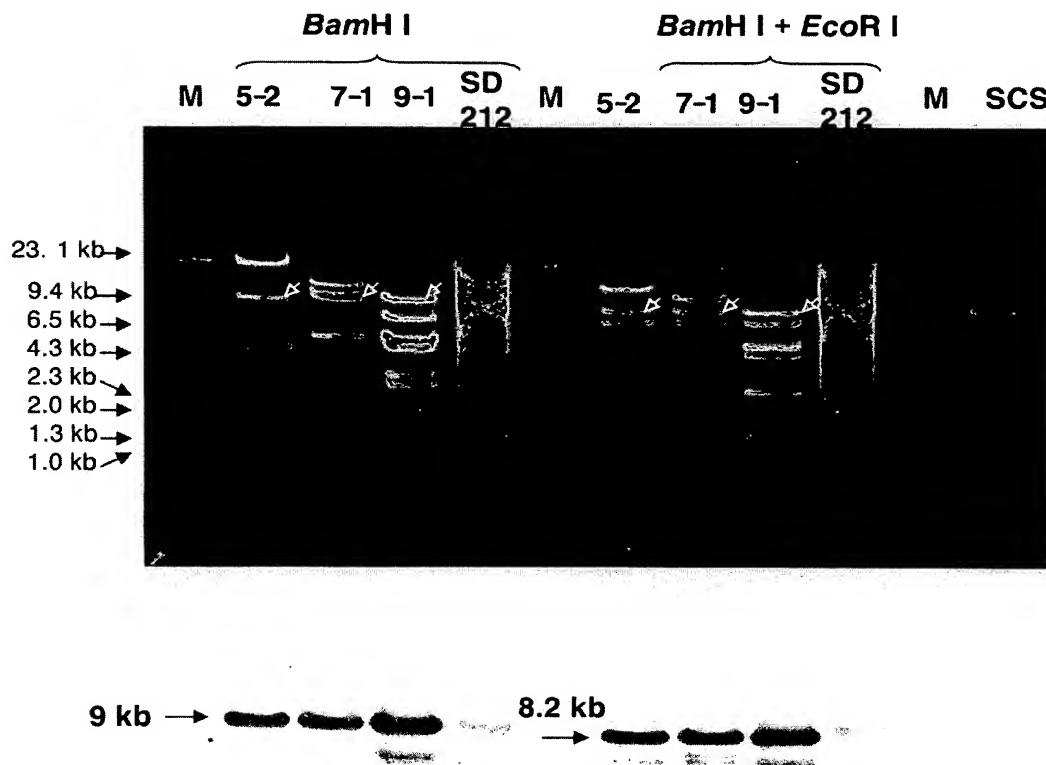
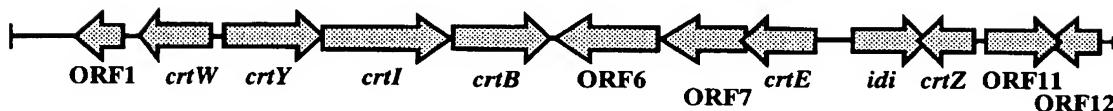


Fig. 5



Astaxanthin biosynthesis gene cluster

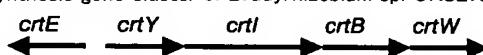
*Agrobacterium aurantiacum* (*Paracoccus* sp. MBIC01143)



*Erythrobacter longas* Och 101



Canthaxanthin biosynthesis gene cluster of *Bradyrhizobium* sp. ORS278



Zeaxanthin biosynthesis gene cluster

*Erwinia uredovora* 20D3 (*Pantoea ananatis*)



*Xanthobacter autotrophicus* Py2



Fig. 6

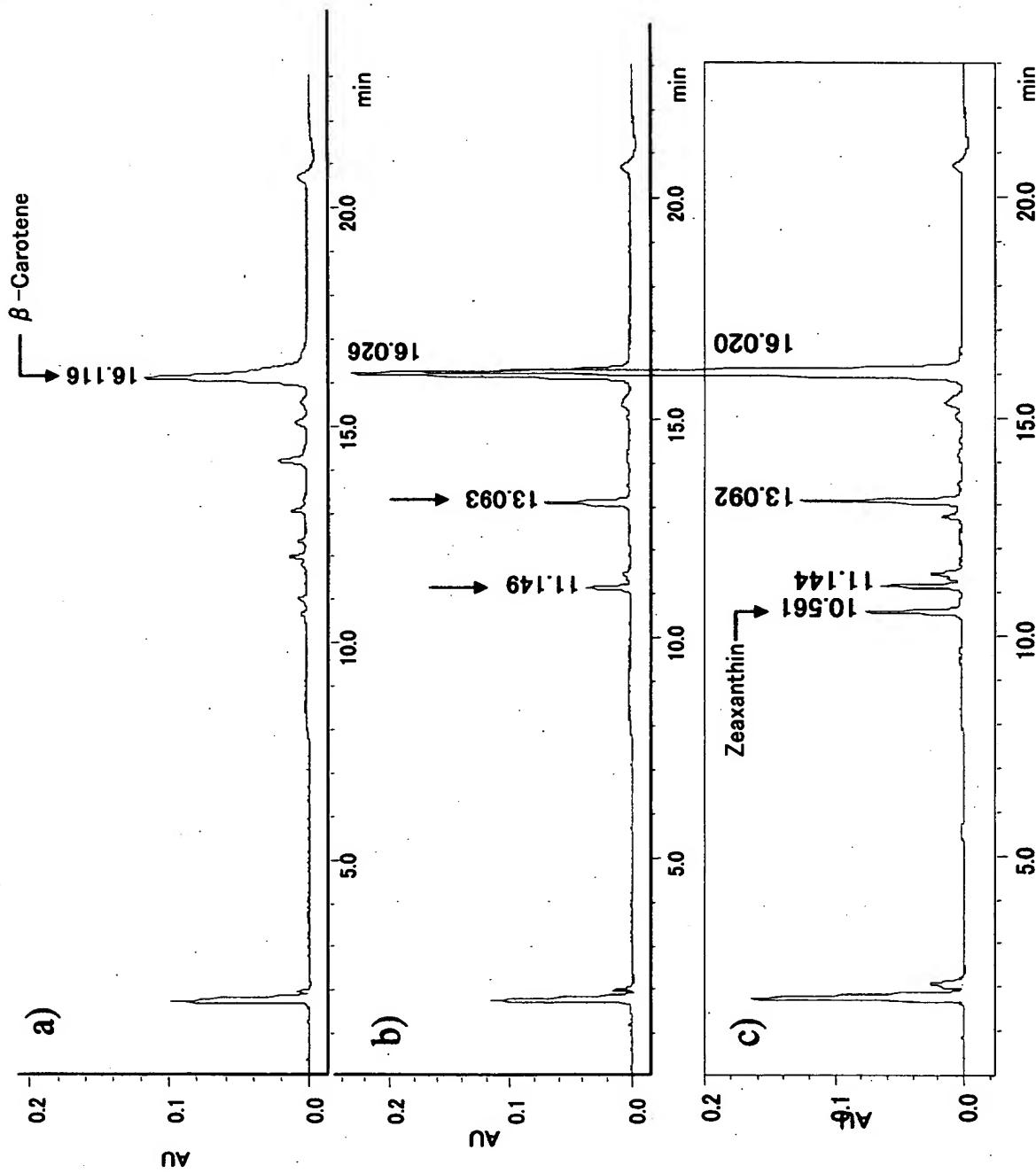


Fig. 7

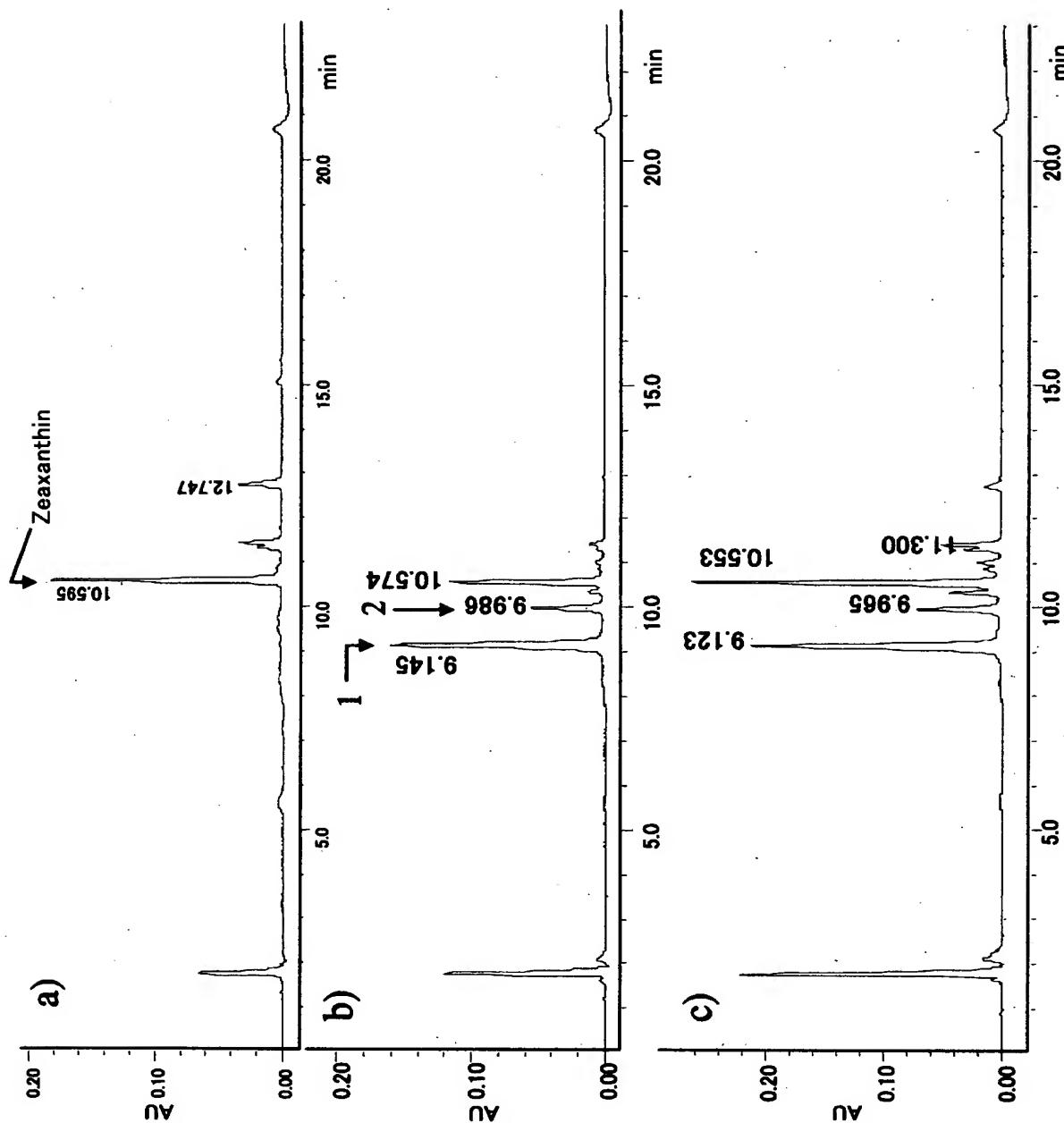


Fig. 8

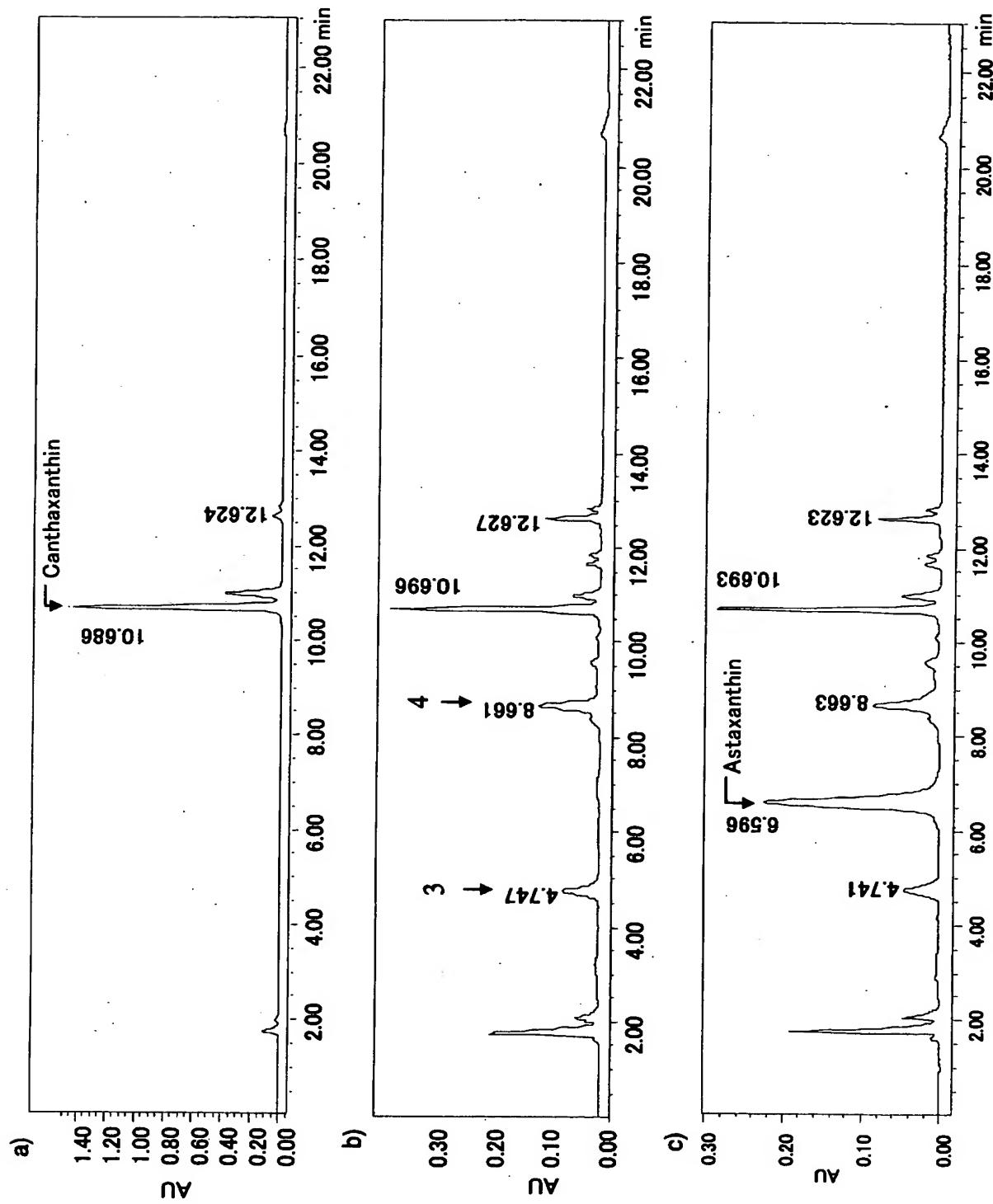


Fig. 9

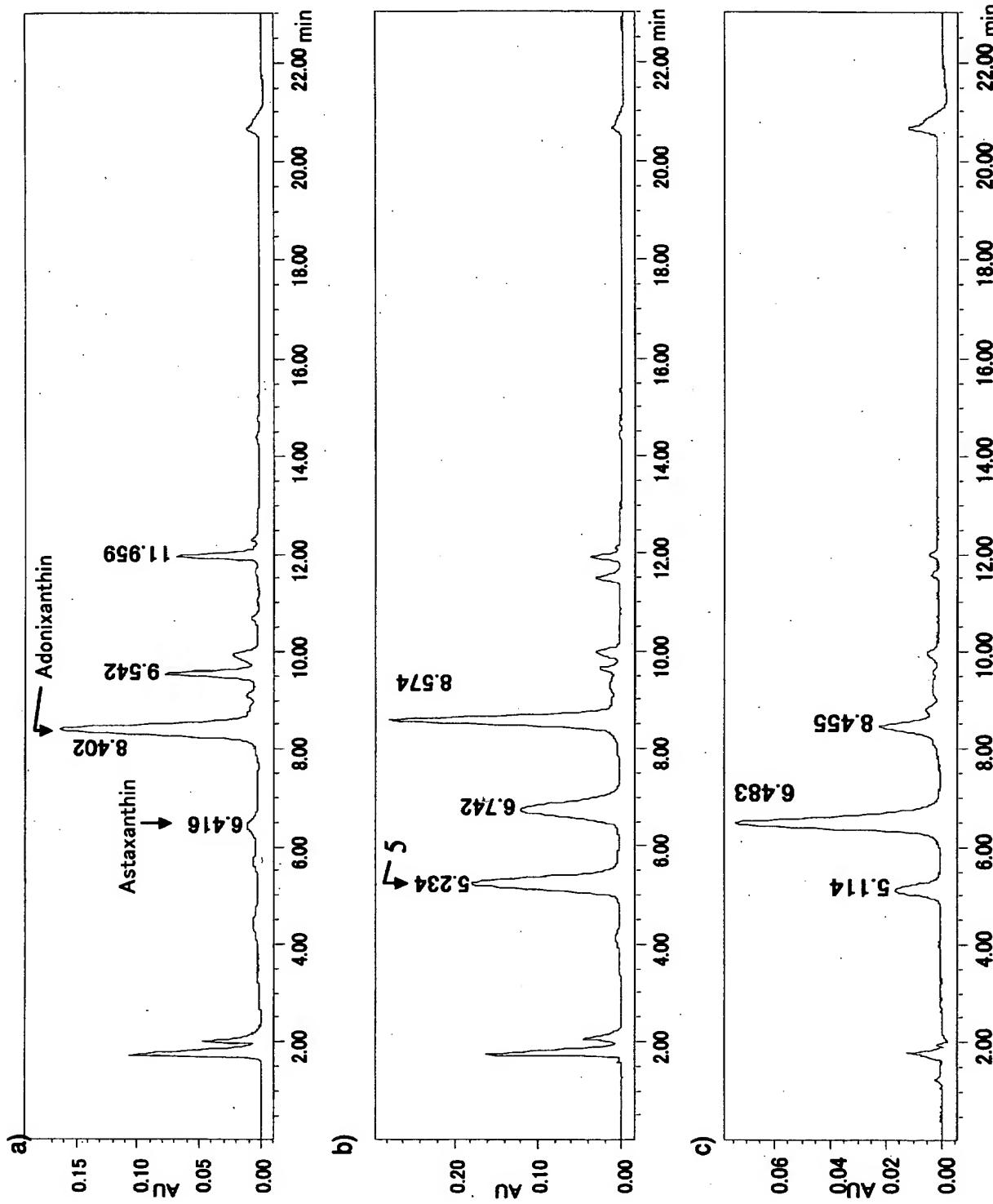


Fig.10

